I CLAIM:

1. A method for reducing energy costs during set periods in an ecological coal transformation process, comprising the steps of: a) storing combustible by-products generated during transformation of raw coal into ecological coal, and b) using said combustible by-products as an additional source of energy during said set periods.

2. A method as defined in claim 1, wherein said set periods are function of an energy demand associated with the industrial process.

3. A method as defined in claim 2, wherein step b) comprises the steps of: monitoring the energy demand, withdrawing at least part of said combustible by-products from a storage unit when the energy demand reaches a predetermined value, and converting the withdrawn combustible by-products into energy.

4. A method as defined in claim 3, further comprising the steps of continuously monitoring said energy demand.

5. A method as defined in claim 3, wherein the step of converting the withdrawn combustible by-products is effected by burning the withdrawn combustible by-products so as to generate hot gases, and circulating said hot gases through a turbine to extract energy therefrom.

6. A method as defined in claim 5, wherein said combustible by-products are stored under pressure into said storage unit.

7. A method as defined in claim 3, further comprising the step of: controlling the quality of the combustible by-products before the same be stored in said storage unit.

8. A method as defined in claim 7, wherein the step of controlling the quality of the combustible by-products includes the step of withdrawing unwanted components from the combustible by-products.

9. A method as defined in claim 3, further comprising the step of mixing and storing pyrolytic gases with by-process gases generated while briquetting hot carbonate, obtained in a process of pyrolysis of fine-grained power coal with fine-grained baking coal heated up to a maximum plasticity temperature thereof.

10. A method as defined in claim 9, comprising the step of grinding the raw coal before transforming the same into ecological coal.

11. A coal transformation system comprising an ecological coal production unit for transforming raw coal into ecological coal, an outlet for discharging combustible, gaseous, waste by-products from said ecological coal unit, a storage unit for storing the combustible, gaseous, waste by-products, a monitoring device for monitoring an energy demand for transforming raw coal into ecological coal, and a control system operatively connected to said monitoring device for allowing said combustible, gaseous, waste by-products to be withdrawn and subsequently used as an additional source of energy when the system energy demand reaches a predetermined value.

12. A system as defined in claim 11, further including a quality control system for controlling the quality of the combustible, gaseous, waste by-products before being stored.

13. A system as defined in claim 11, further including a combustion chamber and a turbine for extracting energy from the combustible, gaseous, waste by-products.

14. A system as defined in claim 11, wherein said ecological coal production unit comprises a reactor in which pyrolysis of coal is taking place, the pyrolysis process resulting in the production of carbonate and pyrolytic gases.

15. A system as defined in claim 14, wherein said ecological coal production unit further includes a grinding apparatus to grind the raw coal before feeding same into the reactor.

16. A system as defined in claim 14, wherein said ecological coal production unit further includes a separator for separating the pyrolytic gases from the carbonate and dust.

17. A system as defined in claim 16, wherein said separator is a cyclone.

18. A system as defined in claim 14, wherein said ecological coal production unit further includes a mixer where the carbonate is mixed with grained baking coal heated up to a plasticity temperature thereof.

19. A system as defined in claim 11, further including an electrolyzer for electrolyzing a mass of

water to generate hydrogen and oxygen which are respectively added to the said combustible, gaseous, waste by-products and the ecological coal.